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IS 10433 (Part 2): 2002

भारतीय मानक तेल-चालित युग्मकों के लिए स्टड टी बॉडी (स्टड रन)—विशिष्टि भाग 2 बॉर स्टॉक से निर्मित

( पहला पुनरीक्षण )

Indian Standard

# MALE STUD TEE BODY (STUD RUN) FOR OIL-HYDRAULIC COUPLINGS — SPECIFICATION

PART 2 MADE FROM BAR STOCK

(First Revision)

ICS 23.040.60

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BUREAU OF INDIAN STANDARDS MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG NEW DELHI 110002 Fluid Power Fittings, Hoses and Hose Assemblies Sectional Committee, BP 17

#### **FOREWORD**

This Indian Standard (Part 2) (First Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Fluid Power Fittings, Hoses and Hose Assemblies Sectional Committee had been approved by the Basic and Production Engineering Division Council.

In fluid power systems, power is transmitted and controlled through a fluid (liquid or gas) under pressure within a circuit. The male stud tee body (stud run) is a component used in stud run tee coupling assemblies for oil-hydraulic systems.

This standard was first published in 1983. This revision has been taken up to bring the standard in line with the current practices prevalent in the industry.

While preparing this standard, considerable assistance has been derived from:

DIN 3914:1987 Male stud tees (stud run)

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS 2:1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Title

### Indian Standard

## MALE STUD TEE BODY (STUD RUN) FOR OIL-HYDRAULIC COUPLINGS — SPECIFICATION

#### PART 2 MADE FROM BAR STOCK

(First Revision)

IS No.

#### 1 SCOPE

This standard (Part 2) specifies dimensions, material and other requirements for male stud tee body (stud run) made from bar stock for use in oil-hydraulic systems.

#### 2 REFERENCES

The following standards contain provisions, which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	Title
1570(Part 3): 1979	Schedules for wrought steels: Part 3 Carbon and carbon manganese free cutting steels (first revision)
2062 : 1999	Steel for general structural purposes—Specification (fifth revision)
2500 (Part 1): 2000	Sampling inspection procedures— Part 1 Attribute sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection (third revision)
2643 : 1999	Pipe threads where pressure-tight joints are not made on the threads—Dimensions, tolerances and designation (second revision)
3618 : 1966	Specification for phosphate treatment of iron and steel for protection against corrosion
4218	ISO general purpose metric screw

threads:

(Part 1): 2001 Basic profile (second revision) (Part 2): 2001 General plan (second revision)

(Part 3): 1999 Basic dimensions (second revision)

(Part 4): 2001 Selected sizes for screws, bolts and

nuts (second revision)

8805 : 2002	General requirements for ferrule type couplings used in oil-hydraulic systems (first revision)
10416 : 1992	Fluid power systems and components—Vocabulary (first revision)
10480 : 1983	Specification for stud run tee- coupling assemblies for oil-hydraulic systems
14962	ISO general purpose metric screw threads—Tolerances:
(Part 1): 2001	Principles and basic data
(Part 2): 2001	Limits of sizes for general purpose external and internal screw threads -

#### **3 DEFINITIONS**

For the purpose of this standard, the definitions given in IS 10416 shall apply.

Medium quality
(Part 3): 2001 Deviations for constructional screw

#### 4 DIMENSIONS

Dimensions shall be as given in Table 1.

threads

#### 5 MATERIAL

Steel used in the manufacture of male stud tee body (stud run) shall conform to 14C14S14 of IS 1570(Part 3) or to IS 2062. Any other equivalent steel as agreed to between the user and the manufacturer may also be used.

#### **6 GENERAL REQUIREMENTS**

- 6.1 These male stud tee bodies (stud run) are intended for assembly in accordance with Type B of IS 10480.
- 6.2 For details not covered in this standard, reference shall be made to IS 8805.

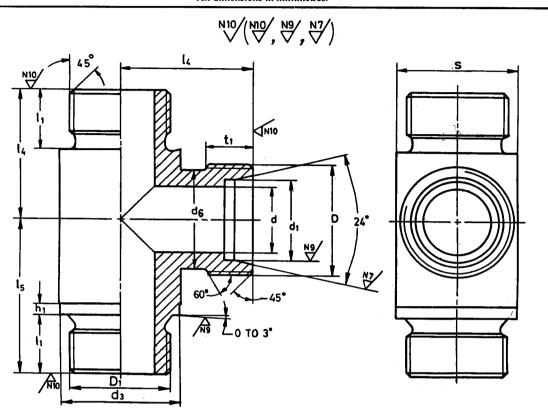
#### 7 WORKMANSHIP AND FINISH

All male stud tee bodies shall be finished smooth and free from burrs, fins, sharp edges and other surface defects.

Table 1 Dimensions for Male Stud Tee Body (Stud Run)
Made from Bar Stock

(Clause 4)

All dimensions in millimetres.



Series	Outside Diameter of Tube	<b>d</b> <sub>3</sub> h14	D <sub>1</sub> <sup>1)</sup>	$D^{2)}$	d	<b>d</b> <sub>1</sub> B11	<b>d</b> <sub>6</sub> h13	<i>t</i> <sub>1</sub> ±0.2	l <sub>4</sub> ±0.3	l <sub>5</sub> ±0.3	<i>l</i> ₁ ±0.2	h <sub>l</sub> Min	S hl4
	22	32	-G%	M 30 × 2	19	22	27	12	35	42	16	3	32
Light	28	39	GI	M 36 × 2	24	28	33	12.5	38	48	18	3	41
L	35	49	G1¼	M 45 × 2	30	35	42	12.5	45	54	20	3	50
	42	55	G11/2	M 52 × 2	36	42	49	14	51	61	22	3	55
	20	32	G¾	M 30 × 2	16	20	27	13	37	42	16	3	32
Heavy	25	39	GI	M 36 × 2	20	25	33	15	42	48	18	3	41
H	30	49	G1¼	M 42 × 2	25	30	39	16	49	54	20	3	50
	38	55	G1½	M 52 × 2	32	38	49	19	57	61	22	3	55

NOTE-Stud end details shown in figure conform to Type A of IS 8805, Type B may be used if required.

<sup>1)</sup> Class A threads on stud end as per IS 2643.

<sup>2)</sup> Threads 6g on tube ends as per IS 4218 (Parts 1 to 4) and IS 14962(Parts 1 to 3).

#### **8 SURFACE PROTECTION**

The male stud tee bodies (stud run) shall be phosphated to Class A2 of IS 3618 unless otherwise agreed to between the user and the manufacturer.

#### 9 SAMPLING

- 9.1 In a consignment, all the male stud tee body of same designation, manufactured from the same material under similar conditions of production shall be grouped together to constitute a lot.
- 9.2 Unless otherwise agreed to between the supplier and the purchaser, the procedure given in IS 2500 (Part 1) shall be followed for sampling inspection. The inspection level, acceptable quality level (AQL) and type of sampling plan to be followed for various characteristics shall be as given in 9.2.1.
- 9.2.1 For shape, dimensions, designation, workmanship and finish and general requirements, a single sampling plan with Inspection Level IV and AQL of 2.5 percent as given in Tables 1 and 2 of IS 2500 (Part 1) shall be followed.

#### 10 DESIGNATION

A male stud tee body of light series L for outside

diameter of tube 22 mm, Type A (or B) stud end and conforming to this standard shall be designated as:

Stud run tee body IS 10433(Part 2) L 22 A (or B)

#### 11 MARKING

11.1 Each male stud tee body (stud run) shall be marked with designation and manufacturer's name, initial or recognized trade-mark.

#### 11.2 BIS Certification Marking

Male stud tee body (stud run) may also be marked with Standard Mark.

11.2.1 The use of the Standard Mark is governed by the provision of *Bureau of Indian Standards Act*, 1986 and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

#### 12 PACKING AND PACKAGING

Each male stud tee body (stud run) shall be suitably packed so that no damage takes place while transporting and storing. The mode of packaging shall be as agreed to between the purchaser and supplier.

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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of 'BIS Catalogue' and 'Standards: Monthly Additions'.

This Indian Standard has been developed from Doc: No. BP 17 (0128).

#### **Amendments Issued Since Publication**

Amend N	o. Date of Issue	Text Affected
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